## ABSTRACT OF THE DISCLOSURE

A plurality of vessel receptacles 16 and load cells 18 are mounted along the outer periphery of a revolving body 14 at an equal circumferential spacing. Filling means 24 is disposed above each of the vessel receptacles 16. For an operation in a first operational mode, the tare of a vessel 4 which is supplied from the outside onto one of the vessel receptacle 16 is measured and such data is fed to a controller 20 which determines a mean value of measured tares and store it. Subsequently, the operation is switched to a second operational mode for purpose of a filling operation. In the second operational mode, no measurement of the tare is made, and the mean value is regarded as representing the tare of supplied vessels for purpose of a filling operation. After a given time interval or after a given number of vessels have been filled, the operation is again switched to the first operational mode where the mean value is again measured. If the new mean value is different from the previous mean value, the stored mean value is rewritten. The present invention allows the filling operation to be initiated at an earlier timing.